

derived from synthetic means, e.g. by expressing a recombinant gene encoding protein of interest in a suitable host, as described in greater detail below. Any convenient protein purification procedures may be employed, where suitable protein purification methodologies are described in Guide to Protein Purification, (Deuthser ed.) (Academic Press, 1990). For example, a lysate may be prepared from the original source, e.g. HEC or the expression host, and purified using HPLC, exclusion chromatography, gel electrophoresis, affinity chromatography, and the like.

NUCLEIC ACID COMPOSITIONS

Also provided are nucleic acid compositions encoding HEC-GLCNAC6ST proteins or fragments thereof, as well as the HEC-specific KSGal6ST homologues of the present invention. By HEC-GLCNAC6ST nucleic acid composition is meant a composition comprising a sequence of DNA having an open reading frame that encodes HEC-GLCNAC6ST, i.e. a *HEC-GLCNAC6ST* gene, and is capable, under appropriate conditions, of being expressed as HEC-GLCNAC6ST. Also encompassed in this term are nucleic acids that are homologous or substantially similar or identical to the nucleic acids encoding HEC-GLCNAC6ST proteins. Thus, the subject invention provides genes encoding huHEC-GLCNAC6ST and homologs thereof. The human *HEC-GLCNAC6ST* open reading frame/coding sequence is present in the cDNA sequence shown in Fig. 1 and identified as SEQ ID NO:01, *infra*. The subject invention also provides nucleic acids having a sequence encoding mouse HEC-GLCNAC6ST and homologs thereof. The mouse *HEC-GlcNAc6ST* coding sequence/open reading frame is present in the cDNA sequence shown in Fig. 3 and identified as SEQ ID NO:03, *infra*. The above described mouse and coding sequences can also be found on plasmids _____ and _____ deposited with the ATCC and assigned identification numbers of _____ and _____, respectively.

The source of homologous genes may be any species, e.g., primate species, particularly human; rodents, such as rats and mice, canines, felines, bovines, ovines, equines, yeast, nematodes, etc. Between mammalian species, e.g., human and mouse, homologs have

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